8600068

# THE UNIVERSALES OF AMERICA

TO ALL TO WHOM: THESE; PRESENTS; SHALL; COME::

# Helena Chemical Company

Withereas, there has been presented to the

#### Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable basic seed of the variety in a public repository as provided by LAW, the right to exclude others from selling the variety, or offering it for sale, or reproducing it, importing it, or exporting it, or using it in producing a hybrid or different ety therefrom, to the extent provided by the Plant Variety Protection Act T. 1542, as amended, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Sampson'

In Institution Witherest, I have hereunto set my hand and caused the seal of the Plant Variety Exotection Office to be affixed at the City of Washington, D. C. this 28th day of November in the year of our Lord one thousand nine hundred and eighty-six.

Viela of E. Lyng Secretary of Agriculture

Attosk

Lend H. Evans Commissioner

Plant Variety Protection Office Agricultural Marketing Service

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U.S. DEPARTMENT OF AGRICULTU AGRICULTURAL MARKETING SERV	ACE .	FORM APPROVED: OMB NO. 0581-000
APPLICATION FOR PLANT VARIETY PROTE	No certificate for plant variety protection may be issued unless a completed approaction form has been received (5 U.S.)	
(Instructions on reverse)		553).
1. NAME OF APPLICANT(S) HELENA CHEMICAL COMPANY	2. TEMPORARY DESIGNATION HB-468-DL-6	3. VARIETY NAME Sampson
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 5100 POPLAR AVENUE CLARK TOWER	5. PHONE (Include area code)	FOR OFFICIAL USE ONLY
SUITE 3200	(901)761-0050	PVPO NUMBER
MEMPHIS, TN= 38137		8600068
6. GENUS AND SPECIES NAME 7. FAMILY NAM	ME (Botanical)	DATE
Glycine max	minosae	Feb. 7, 1986
	DATE OF DETERMINATION	AMOUNT FOR FILING
Soybean	November, 1976	DATE  DATE  DATE  AMOUNT FOR CERTIFICATE
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM ( partnership, association, etc.)	OF ORGANIZATION (Corporation,	
그는 그는 그는 그는 그는 그는 그는 그는 그는 그 가는 그들은 사람들이 하는 것이 나를 하는 것이 없다면 하는 것이 없다면 하는데	and the comments and all the comments of the c	\$ 200 00 PATE Navember 4, 1986
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware		12. DATE OF INCORPORATION
13. NAME AND ADDRESS OF APPLICANT REPRESENATIVE(S), IF	ANY TO SERVE WE	6-20-77
Memphis, TN 3813  14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITI  a. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)  b. Exhibit B, Novelty Statement	c. Exhibit C, Objective De from Plant Variety Prot	scription of the Variety (Request form ection Office.)
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIESEED? (See Section 83/4) of the Plant Variety Protection 4 et )	TY BE SOLD BY VARIETY NAME	ONLY AS A CLASS OF CERTIFIED
The second of the 1 mile value by 2 to tection Met.)	Yes (If "Yes," answer ite	ems 16 and 17 below) X No
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	17. IF "YES" TO ITEM 16, WHE BEYOND BREEDER SEED	HICH CLASSES OF PRODUCTION
Yes No	Foundation	Registered Certified
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIE	TY IN THE U.S. OR OTHER COUN	TRIES?
		Yes (If "Yes," give names of countries and dates)
		⊠ No
19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTS	RIES?	
		Yes (If "Yes," give names of countries and dates)
		<b>⊠</b> No
20. The applicant(s) declare(s) that a viable sample of basic seeds of	of this variety will be furnished w	
plenished upon request in accordance with such regulations as The undersigned applicant(s) is (are) the owner(s) of this sexua distinct, uniform, and stable as required in Section 41, and is every Protection Act.	may be applicable.	
Applicant(s) is (are) informed that false representation herein c	can jeopardize protection and res	ult in penalties.
Tuchard St. three		DATE / S/
SIGNATURE OF APPLICANT		2/3/10
		DATE /

FORM LMGS-470 (9-81)

(Edition of 1-78 is obsolete)

#### EXHIBIT A

## HELENA CHEMICAL COMPANY'S APPLICATION FOR SAMPSON

## Origin and Breeding History of the Variety

Sampson originated from the cross Bragg x Essex. The pedigree method of breeding was employed in selecting this variety. In 1976 an F4 plant row was bulked for yield testing in 1977. Concurrent yield testing and increasing of this line, then known as experimental HB-468-D1-6, was carried out. Observations and rogueing were conducted on subsequent years on each increase generation.

Based on the above observances, Sampson is stable for all observable characteristics except for the following varients. Sampson has purple flowers. Sampson has up to one (1) plant with white flowers in 2,000 plants. Sampson has a twany pubescence with up to one (1) plant with gray pubescence in 2,000 plants. Sampson has a black hilum with up to one (1) seed in 2,000 with hilum color other than black.

#### EXHIBIT B

## HELENA CHEMICAL COMPANY'S APPLICATION FOR SAMPSON

#### Novelty Statement

Sampson is most similar to Centennial. The principle difference between Sampson and Centennial is reaction to Phytophthora megasperma which causes phytophthora root rot. When using the hypocotyl test in screening for resistance to Phytophthora megasperma Sampson is susceptible to races 1 and 2 and Centennial is resistant to races 1 and 2. The foliage color of Sampson is considerably darker than that of Centennial.

TABLE B I

# AVERAGE DATA FOR II TESTS CONDUCTED IN MISSISSIPPI & LOUISIANA IN 1981, 1982, 1983

	Sampson	Centennial	Difference
Flower Color 1/	P	P	None
Pubescence Color $2/$	Т	Т	None
Plant Height (cm)	76.2	83.2	-7.0
Maturity Date	10-23	10-20	+3
Lodging <u>3</u> /	1.3	1.4	-0.1
Metribuzin Reacton <u>4</u> /	1,5	2.0	-0.5
Foliage Color <u>5</u> /	3.8	1.8	+2.0
Protein Content (%)	41.2	39.9	+1.3
Oil Content (%)	20.5	20.4	+0.1
Foliar Feeding Insect 6/	2.5	3.4	-0.9
Stink Bug Damage <u>7</u> /	1.1	1.3	-0.1
Weight gm/100 Seed	13,4	11.1	+2.6
Seed Quality Rating $8/$	1.3	1.8	+0.4
Seed Coat Luster <u>9</u> /	4.0	3.0	+1.1
Seed Coat Color 10/	3.5	3.1	+0.5
Hilum Color	BL.	BL.	None
			•
<u>l</u> / P = Purple W = White		<u>6</u> / 1 = No F∈ 5 = Compl	eding etely Skeletonized
2/ T = Tawny G = Gray			ed Damage e Seed Damage
3/ 1 = No Lodging 5 = Severe Lodging			Good Quality Poor Quality
4/ 1 = Very Tolerant 5 = Plants Killed		<u>9</u> / 1 = Very 5 = Very	Shiny
$\frac{5}{}$ 1 = Very Light Green 5 = Very Dark Green		10/ 1 = Deep 5 = Light	

	SAMPSON	CENTENNIAL	DIFFERENCE
Flower Color 1/	P	P	None
Pubescence Color 2/	, T	· T	None
Plant Height (cm)	70.9	78.3	-7.4
Maturity Date	10-27	10-25	+2
Lodging <u>3</u> /	1.2	1.3	-0.1
Protein Content (%)	39.3	37.0	+2.3
Oil Content (%)	20.8	21.1	-0.3

 $<sup>\</sup>frac{1}{}$ / P = Purple W = White

 $<sup>\</sup>frac{2}{G}$  T = Tawny G = Gray

 $<sup>\</sup>frac{3}{}$  1 = No Lodging 5 = Severe Lodging

#### U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION BELTSVILLE, MARYLAND 20765

# OBJECTIVE DESCRIPTION OF VARIETY

INSTRUCTIONS: See Reverse.	
NAME OF APPLICANT(S) HELENA CHEMICAL COMPANY	FOR OFFICIAL USE ONLY
ADDRESS (Street and No., or R.F.D. No.; City, State, and ZIP Code)	- 8600068
5100 POPLAR AVENUE CLARK TOWER SUITE 3200	VARIETY NAME OR TEMPORARY DESIGNATION,
MEMPHIS, TN 38137	SAMPSON MS
Place the appropriate number that describes the varietal character of this var	
1. SEED SHAPE	ety in the boxes below.
1 * SPHERICAL 2 * SPHERICAL 3 * ELONGATE 4 * OTHE	R (Specify)
2. SEED COAT COLOR:	'SHADE
1 = YELLOW 2 = GREEN 3 = BROWN 4 = BLACK 5 = OTHER (Specify)	2 1 = LIGHT 2 = MEDIUM 3 = DARK
3. SEED COAT LUSTER: 4. SEED SIZE	
1 = DULL 2 = SHINY 1 3 GRAMS F	ER 100 SEEDS
5. HILUM COLOR:	SHADE
6 1 = BUFF 2 = YELLOW 3 = BROWN 4 = GRAY 5 = IMPERFECT	
6 = BLACK 7 = OTHER (Specify)	1 2 1 = LIGHT 2 = MEDIUM 3 = DARK
4. COTYLEDON COLOR: 7. LEAFLET SIZE	(See Reverse):
1 = YELLOW 2 = GREEN 2 1 = SMAL	L 2 = MEDIUM 3 = LARGE
4. LEAFLET SHAPE:	^
1 = OVATE 2 = OBLONG 3 * LANCEOLATE 4 = ELLIPTICAL 5	= OTHER (Specify)
9. LEAF COLOR (See reverse):	10. FLOWER COLOR:
2 1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN	2 1 = WHITE 2 = PURPLE 3 = OTHER (Specify)
11. POD COLOR: 12: POD SET:	
1 = TAN 2 = BROWN 3 = BLACK 1 = SCATT	ered 2 = concentrated
13. PLANT PUBESCENCE COLOR:	1 SHADE:
2 1 = GRAY 2 = BROWN 3 = OTHER (Specify)	2 1 = LIGHT 2 = MEDIUM 3 = DARK
14. PLANT TYPES (See Reverse): 15. PLANT HABIT:	
2 1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE 1 1 = DETERMENTED 1 3 = OTHER	AINATE 2 = INDETERMINATE (Specify)
16. HYPOCOTYL COLOR: 17. SEED PROTEIN	
2 1 = GREEN 2 = PURPLE - 1 = A	2 = 9
18. NUMBER OF DAYS TO FLOWERING 19. MATURITY GROUP:  (Place a zero in first box (e.g. 0 9 ) when 1 = 00 2 = 0 3 =	4=11 5=111
days are 9 or less.) 8 6=1V 7=V 8=	
20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) A	
(e.g. [0 2]) when size is 9 mm. or less.) MM. LENGTH  MM. LENGTH	MM. WIDTH
OF SEEDLING - OF COTYLEDON	- OF COTYLEDON
21. DISEASE: (Enter 0 =Not Tested; 1 = Susceptible; 2 = Resistent)	
0 BACTERIAL 0 SOYBEAN 0 DOWNY 0 PURPLE STAIN	POD AND 0 ROOT KNOT
0 FROGEYE 0 STEM 1 PHYTO- 0 BROWN STEM ROT 0	TARGET 0 BROWN SPOT
0 BLIGHT 0 WILDFIRE 0 RHIZOCTONIA 0 OTHER (Specify)	6

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Centennial	Petiole angle	Centennial
Leaf shape	Centennial	Seed size	Braxton
Leaf color	Lee 74	Seed shape	Centennial
Leaf surface	Centennial SUBMITTED AND SIMILAR STANDARD VAR	Seedling pigmentation	Centennial

VARIETY	NO OF DAYS	LODGING	PLANT	LEAF	SIZE	CON	TENT	AVERAGE NO.	
	TO MATURITY	SCORE	HEIGHT	Width	Length	Protein	Oil .	OF PODS PER PLANT	IODINE NO.
Submitted	10-23	1.3	76.2			41.2	39.9%		
Name of similar variety Centennial	10-20	1.4	83.2		~	20.5	20.4	: -	

#### INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

- 1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
- 2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
- 3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

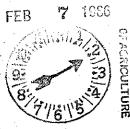
COLOR	4.	VARIETY
Light Green		''Ada''
Medium Green	1.5	"Wilkin"
Dark Green		"Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

SIZE			VARIETY
Small			"Amsoy"
Medium	•		"Bonus"
Large			"Anoka"

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

1175	VARIETY
Slender	"Vansoy"
Intermediate	"Wirth"
RECEIVED	"Adelphia"
· · · · · · · · · · · · · · · · · · ·	



DVD0 FORM-LPGS-470-2 (1-81) Reverse 7

#### EXHIBIT D

## HELENA CHEMICAL COMPANY'S APPLICATION FOR SAMPSON

## Additional Description of the Variety

Sampson is a group VI maturity soybean variety which matures about three (3) days later than Centennial. Sampson has purple flowers, a tawny pubescence and a tan pod wall. leaves of Sampson are ovate in shape. The foliage color of Sampson is medium dark, and therefore somewhat darker than the foliage of Centennial. The seed coat is quite dull and the seed coat color is medium yellow. The hilum color is black and the seed of Sampson (3,388 seed per pound) is larger than the seed of Centennial (4,090 seed per pound). Sampson is somewhat higher in protein content (41.2%) than Centennial (39.9%). Sampson (20.5%) is similar to Centennial (20.4%) in oil content. Sampson exhibits hypocotyl susceptibility to races 1 and 2 of Phytophthora megasperma which causes phytophthora root rot. Sampson (76.2 cm) is somewhat shorter in height than Centennial (83.2 cm).

As stated above, Sampson has purple flowers. Sampson has up to one (1) plant with white flowers in 2,000 plants. Sampson has a tawny pubescence with up to one (1) plant with gray pubescence in 2,000 plants. Sampson has a black hilum with up to one (1) seed in 2,000 with hilum color other than black.

# HELENA CHEMICAL COMPANY'S APPLICATION FOR SAMPSON

## Ownership of Variety

The soybean variety Sampson is owned by Helena Chemical Company through purchase.

Sampson was purchased on February 28, 1983 from Delta and Pineland Company, Scott, MS. See attachment: Soybean Variety Agreement.

#### SOYBEAN VARIETY AGREEMENT

This agreement is entered into between Helena Chemical Company,

a Corporation with principal offices at Memphis, Tennessee (hereinafter referred to as Helena) and Delta and Pine Land Company, a Delaware Corporation with principal offices in Scott, Mississippi, (hereinafter referred to as Delta and Pine) this 28 day of Fahruary, 1983.

#### WITNESSETH:

WHEREAS, Delta and Pine is engaged in the business, among other things, of breeding and developing soybean seed varieties.

WHEREAS, Helena is a seed company which desires to have access to and use certain of the seed varieties developed by Delta and Pine with the option to purchase the rights to same.

WHEREAS, it is the intention of the parties that Delta and Pine provide certain strains of soybean seed to Helena for the use and purposes and upon the terms and conditions contained herein.

NOW, THEREFORE, for good and valid consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

- 1. Delta and Pine shall provide exclusively to Helena the soybean strains known as Deltapine X468 (HB-468D1-6) and Deltapine X507 (HB-507D1-7) for a period of one year so that Helena may test, analyze and otherwise evaluate the said soybean strains. During said period, Helena shall accept title to or reject the opportunity to take title to any or all of the above described strain varieties for their exclusive use in increasing, processing, marketing, or for any other purpose.
- 2. In consideration for the use of the aforedescribed strains during this testing period, Helena will place with Delta and Pine a deposit of \$1,500.00 for each soybean strain, or a total of \$3,000.00, and this sum shall be paid upon the execution of this agreement. The aforesaid deposit shall be held and disbursed in accordance with the terms hereinafter set out.
- 3. Delta and Pine shall provide to Helena the aforesaid soybean strains no later than the 28th day of February, 1983 and the one



year for the purpose of testing, analyzing and evaluating the said strains shall commence on that date. No later than one year from the aforementioned date, Helena will notify Delta and Pine of its intentions with regard to each of the two strains; specifically, as to whether or not Helena will accept title to one or more of the strains or whether it rejects the opportunity to take title to the strains.

- 4. During the aforementioned one year period, if Helena affirmatively rejects the opportunity to take title to one or more of the strains, or, at the end of the one year period Helena fails to give written notice to Delta and Pine of Helena accepting title to one or more of the two strains, then all right, interest and ownership in and to those strains shall remain in Delta and Pine and Delta and Pine shall be free to offer the strains to others for sale or for any other purpose and the deposit placed with Delta and Pine by Helena for each of the two strains that are rejected will be forfeited and Delta and Pine shall retain said deposit.
- 5. If one or more of the strains are accepted by Helena during the one year period, the total advance deposit for those strains that have been accepted will be applied toward royalties due Delta and Pine, except that \$750.00 of each \$1,500.00 deposit received for each such strain will be applied toward the application for plant variety protection by Helena. This \$750.00 charge covers only the assistance rendered by Delta and Pine in making the application for plant variety protection; all fees and charges required by the United States Government to secure a certificate of plant protection will be paid by Helena. Any plant variety protection application will be in the name of Helena; however Delta and Pine agrees to assist Helena in the preparing of the application for said certificate of plant protection.
- 6. The balance of \$750.00 that remains from the initial deposit on each accepted strain after application of the \$750.00 referred to in paragraph 5 above, plus the total deposit paid on strains not accepted, will be credited against the royalties due Delta and Pine



commencing with the first commercial seed sales from these soybean strains which are accepted by Helena. The credit allowed will be at the rate of \$0.005 per pound until the entire amount has been applied.

- 7. Helena shall pay royalties on all sales of soybean seed from strains originating from Delta and Pine for as long as these strains are offered by Helena, any agent or distributor, or its successors and assigns.
- 8. Helena shall pay royalties to Delta and Pine each year in accordance with the following schedule:

Number of Bags	Price Per 50# Bag
0 - 10,000	75¢
10,001 - 25,000	70¢
25,001 - 40,000	65¢
40,001 - 60,000	60¢
60,001 - 100,000	55¢
100,001 - or above	50¢

The aforementioned royalty rates will apply only to those Delta and Pine strains offered in this agreement. Should additional Delta and Pine strains be tested and accepted by Helena the royalty rates to be paid thereunder will be subject to agreement by the parties at that time.

- 9. Delta and Pine shall continue, at its option, to breed and develop soybean seed from the strains listed in paragraph 1. Any class of breeder seed produced by Delta and Pine from these soybean strains and delivered to Helena as conditioned, cleaned and bagged seed will be charged to Helena at the rate of \$800.00 per ton. Helena will be invoiced for this breeder seed and payment shall be due within thirty days from the date of invoice.
- 10. An annual report of sales according to each strain of seed covered hereunder (or otherwise identified as a Helena variety) will be submitted to Delta and Pine by July 15 of each year covering all sales from July 1 of the preceding year through June 30 of the current year. Accompanying the annual sales report will be a royalty calculation sheet and a check for payment in full of all royalties due.



- 11. Delta and Pine or its duly authorized agent or accountant has the right to inspect the books of Helena anytime during normal business hours for the purpose of verifying records relating to this agreement.
- 12. Helena shall pay all sums due hereunder at the time designated without deduction or setoff.
- 13. It is acknowledged that title to the subject strains shall remain in Delta and Pine until accepted in writing by Helena.
- 14. In the event of litigation arising from this agreement, the prevailing party in such litigation shall be entitled to reasonable attorney fees.
- 15. Helena shall not transfer, convey or otherwise dispose of any strains of seed which is covered under this agreement until such strains are accepted by Helena under the provisions hereunder.

Entered into the day and date first above written.

HELENA CHEMICAL COMPANY

DELTA AND PINE LAND COMPANY

By: Chum O. Khi

Richard Duthin Mg. Seed Kept

Title

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M